Register of Australian Herbage Plant Cultivars

A. Grasses
8. Setaria
Setaria sphacelata (Schum) Stapf ex Massey (setaria) cv. Narok

Reg. No. A-8a-3
Registered August 1969

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Origin

Narok is a selection from setaria C.P.I.33452 introduced into Australia from the Aberdares region of Kenya (altitude 2190 m) by R.J. Jones in 1963. Preliminary trials conducted at various centres in south-east Queensland indicated that the initial introduction had a considerable degree of frost tolerance and was also vigorous. Two cycles of selection for improvement of winter production and frost tolerance were carried out at the CSIRO Cooper Laboratory, Lawes, and Samford Experiment Station, by J.B. Hacker. The final selection of 87 plants was clonally bulked to 1 hectare from which 68 kg of cleaned seed was produced for release in a single harvest in April 1969. Submitted for registration by the CSIRO Division of Tropical Pastures, Brisbane, and recommended for registration by the Queensland Herbage Plant Liaison Committee. Registered August 1969. Breeder's seed held by the Standards Branch, Department of Primary Industries, Brisbane.

Morphological description (2)

Narok is more robust than Nandi but not as coarse as Kazungula, from which it may be distinguished by its greener colour. At flowering Narok is up to 1.8 m or more in height with inflorescences up to 38 cm long. Inflorescences are generally rust-coloured, and the stigmas usually purple, sometimes white. The seed is rather larger than that of either Nandi or Kazungula, averaging just under 3 mm long. Leaves are broad and soft and hairless apart from rare hairs close to the junction with the sheath. Vegetative tillers are broader than those of Nandi and some plants lack the red pigmentation at the base common to Nandi and Kazungula. The chromosome number is 2n = 4x = 36.

Agronomic characters (2)

The principal merit of Narok setaria is its frost tolerance. Negligible leaf damage occurs at temperatures of -3.3 to -2.8^{o}C, but heavier frosting results in leaf kill. Growth in winter is not expected to be very considerable, and grazing during this season should not be heavy. Summer growth is good but does not reach the pronounced peak of Kazungula. In vitro digestibility data suggest that it is superior in quality to both Nandi and Kazungula. It is low in sodium like cv. Nandi but intermediate in oxalate content (3).

Unlike the other tetraploid cultivar, Kazungula, Narok is not resistant to the leaf spot fungus *Piricularia trisa*.

References

1. Jones, R.J. (1963). Genus Setaria - East African collecting expedition May 11th to August 17th, 1963. CSIRO Aust. Plant Introd. Rev. No. 1, 1963.
2. Jones, R.J. (1971). Personal communication. CSIRO Div. Trop. Pastures, Brisbane.
3. Jones, R.J., et al. (1970). Oxalate poisoning in animals grazing the tropical grass *Setaria spacelata*. *J. Aust. Inst. Agric. Sci.* **36** (1), 41-3.